

THE ABSTRACT AND THE CONCRETE

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THE ABSTRACT & THE CONCRETE.

The word abstract is derived from two Latin words, ab, meaning from, and trahere, meaning to draw. The term therefore connotes a drawing out of a quality, or attribute, from a quantity that embodies it. The word concrete has also a Latin origin, and is a contraction of the preposition con, meaning with, and crescere, meaning to grow. Thus the concrete implies a tangible thing.

At the conclusion of a recent lecture that had dealt rather copiously with vibrations, a questioner asked the lecturer what it was that vibrated. The latter was nonplussed and had to admit his ignorance. The inquirer, of course, had in mind not the elusive, infinitesimal entity that the ordinary scientist conceives as operating in a more rarefied medium, but the ultimate absolute unit.

The question is undoubtedly a teaser, and it brings us to the very verge of the concrete world where this realm would seem to meet the mysterious region known as the abstract. The latter appears to exert a special fascination for the metaphysician and abstract thinker, for to him it conceals the very heart of reality. Not so, however, the materially-minded individual; to him that ephemeral, unknown region is a mere phantom; it arouses his contempt, for according to his estimate of things, it has nothing tangible on which to rest.

Yet this beyond is one of the realms we are about to explore on this occasion, naturally with some trepidation. If the ultimate unit above referred to, namely, the entity that vibrates, cannot be identified, what is the use of speculating on its activities ?

A vibration assuredly implies a something that vibrates. To call a vibration a manifestation of force carries us nowhere. All such terms as radiations, wave-motions, energy, force, etc. yield no enlightenment on the subject; they are merely evasions. In every instance when such terms are employed, there is at the back of the mind of the one who employs them the notion of an ultimate entity that possesses the attribute of mass, or inertia. If this entity did not

function, there would be no evidence of either force or any other phenomenon. To picture a particle of matter however small, moving in a more rarefied medium and occasioning a disturbance in that medium, thus giving rise to radiations and wave-motions, only repeats the problem that its invention was designed to solve. Thus another, and entirely different, approach to our problem is called for.

Spirit and Matter

The two words, spirit and matter, have by this become almost hackneyed. They presumably designate two main aspects of manifested being. The former refers to the non-material, unseen actuating element of manifestation; the latter to the seen and tangible. The body is said to be constituted of the one, the mind, or soul, of the other.

The relationship between these two components of mortal being has ever proved a mystery, and various theories have been advanced by philosophers and thinkers down the ages. But none seemingly would appear to have gained universal approbation. In the main two principal schools of thought, with various intermediate ones, have persisted, and these have held directly opposite views. The one has contended that all originated in matter, consciousness being merely an outgrowth therefrom, the other that all originated in mind and that matter was a condition of consciousness. The former have been designated the realists, the latter the idealists.

In view of this state of affairs, one might wonder if there could not be found some means of effecting a compromise between the two, or rather of acquiring some fuller understanding of the position and bridging the apparent gulf. For when all is said and done, is the gulf as wide as imagined? The eastern thinker has contended that spirit and matter are two different aspects of being, existing at extreme poles and having nothing whatever in common with one another. On this point there seemed to exist no doubt, and many occult students are similarly minded. Yet is the view as sound as it appears? If the two extremes have nothing in common, how can an animal by an effort of the will, a purely spiritual functioning, move a limb which is a purely physical, or material functioning?

Paralleling this metaphysical disputation during the past few centuries has run scientific development. This has aimed at ascertaining beyond all reasonable doubt the true workings of nature.

The scientist has shown to a great extent little patience with philosophical speculation but preferred rather to put all problems to a practical test. The five physical senses plus common-sense were the sole criteria to him, and nothing that was beyond their compass or the extensions of the same could be accepted as proven truth.

He has conducted his activities with pronounced assiduity and has wrenched extraordinary secrets from nature. But as hinted he has relied almost exclusively on the testimony and revelations of the five physical senses for his information. What those five physical senses are in essence, he never seems to have asked, nor considered that they had any serious bearing on his discoveries. His attitude is somewhat being tempered nowadays, as reflected in scientific interest in psychology, but there still remains much to be done in this connection.

Yet until the nature of sensation is known and understood the entire physical universe, which is nothing more nor less than a conglomeration of sensations, must remain an enigma. For to ignore the subjective side of sensation and note only the objective resembles the attempt to fathom the nature of the pictures on a cinematograph screen without taking into account the cinematograph. Only one half of the picture has been considered.

So the question arises what is a sensation ? A sensation is obviously an experience. It is an aspect of consciousness, and as such it involves two subsidiary aspects. One of those latter is a subjective self that experiences the sensation, the other is a spacial factor that accounts for the sensation. But the actual experience is indivisible and has no existence apart from the two aspects named.

However one juggles with these terms, he finds that he cannot isolate them and regard them as different quantities. Matter is inseparable from sensation, and sensation cannot manifest without matter. There is an old saying which declares that extremes meet. So they do, and this is pre-eminently pronounced in this connection. But can the meeting place be identified ? Where does the abstract, or spiritual end and where does the material commence ? If there is a meeting point and one is essentially different from the other, what is involved in that difference and how do the two manage to act and react on one another ?

The physicist examines a world of appearances, and is concerned exclusively with sensuous objects, the world of phenomena. The metaphysician, however, is interested more in the unseen world, or the world of causes, where he suspects reality resides. He prefers rather to fathom the mystery of consciousness and being than the realm of appearances; and in that way he manifests a tendency to abstract every quality from every quantity and leave himself with nothing but abstractions.

But once more it is found that the physicist, in spite of his concrete attitude, is driven to employ abstract notions to enable him to operate. Are not mass, acceleration, force, etc., purely abstract ideas? And equally strange it is that the metaphysician is compelled to resort to concrete and spacial factors to formulate his theories. The physicist seems inspired by one dominating motive and that is to ascertain how the universe works. How is his predominating question. The metaphysician, however, is desirous to know not only how the universe works, but why, and what or Who it is that operates it. Yet although the former might contend that he is not in search of absolute reality, there would seem nevertheless at the back of his mind a hope of eventually identifying an ultimate unit of matter or force that would explain not only the cause of all material things, animate and inanimate, but also the operations of consciousness and the origin of life itself. Moreover, this unit must be detectable by the physical senses or those senses extended.

And in order to reach that goal he pursues a relentless course of analysis.

The Method of Analysis.

Like the child with the toy whistle, he inquires as to the origin of the sound. His curiosity impels him to investigate, and he does so. But he finds that he dissects the whistle only to discover that the sound has vanished. In that way he is no nearer to realising his ambition than when he started.

The one question that the scientist asks, as has been hinted, is, how does the universe work? He thereupon proceeds to investigate; but each problem he solves leaves him with the same problem in another guise. He employs the mind; and to quote an ancient teacher, the

mind is the slayer of the real. That is what apparently occurs in this instance; but, having slain the real, it brings into operation the law of karma and in that way is eventually compelled to pay its karmic debt and reveal the real. That it finally accomplishes, but it effects that in a subtle way.

After many years of diligent and exacting effort, science has arrived at a conclusion regarding the constitution of matter which approximates very closely to that held by the ancient sages. Different paths have been taken, the one having arrived at its conclusions by abstract thought, the other by concrete endeavour, but the result has been virtually the same. It would appear to be another instance of extremes meeting.

The method adopted by the scientist has been one of relentless analysis. He has analysed and dissected matter to such an extent that he has now come to the conclusion that it is something that scarcely warrants the designation of substance. Its solidarity has vanished, and it appears to be an elusive species of phenomena that justifies no further definition than that of force, a purely abstract notion. He commenced his investigations by assuming that matter was divisible into infinitely small particles called molecules. He then proceeded a little further and divided the molecules into atoms. He subsequently split these latter, and after much investigation into the characteristics of these ultimates, came to the conclusion that they were little more than elusive entities that defied complete identification.

But against this relentless penetration into the infinitely small has to be set the search into the infinitely large. This latter course has occupied the astronomer. But in addition to both these lines of endeavour has to be reckoned the factor of magnification, a factor that depends entirely on the nature of the medium through which these extremes are viewed. Two individuals observing the universe through differently constructed optical organs would see it differently.

If the position is regarded dispassionately, is it not obvious that any given particle could, theoretically, at least, be divided infinitely and an ultimate division never reached. In that way is not the hope of ever discovering the ultimate unit, the dream of the scientist,

a vain one ? Would not the identification of such a unit, if at all possible, merely inspire the investigator to probe further ?

Thus the process of analysis as ordinarily recognised becomes useless for arriving at reality. Consequently the wise man must relinquish it and adopt other means.

But what other means are available ?

The Limit.

Although the procedure of dividing a particle in the expectation of finally reaching an absolute unit may be vain, the process has a limit. That limit is a point. If there is one enigma either in or out of creation, that enigma is assuredly a point. Well did the old teacher advise his pupils to meditate on a point. What is a point ? Is it a thing; is it a quantity, a quality, an idea, an abstraction, a concretion, or what ? Has it any evidence to give of its existence ? If it has position as Euclid declares, locate it and prove that it is there. If it has no existence, why is it acknowledged as a factor, and why do all forms come into being as a result of its movements ?

Perhaps the truest definition of a point is, the limit of limitation; and that applies not only to spacial limitation or extension, but to intensity and duration as well. It is an absolute entity, not a relative one. It cannot be magnified; it cannot be minified. It is the supreme common denominator of the two worlds, the abstract and the concrete. It is the one factor which in the long run will reconcile the physicist with the metaphysician.

Having appreciated, then, that the analytical process is useless to solve the riddle of being, let us approach this problem in a different way. Consider a human being and his make-up. A human being is generally regarded as being a compound of two identities. One is a material body, the other a soul, or spiritual entity. The two are pictured as being opposite in every conceivable way, but linked by an intermediate element named consciousness.

But the nature of this link constitutes our main problem. It embodies several phases, and one of that number is referred to as the sensuous faculty. This last is the concern of both the physiologist

and psychologist, and both make desperate efforts to identify its substance. It definitely involves the two sides of being - spirit and matter - but where the one ends and the other commences is apparently impossible to determine. Yet it is that with which we are here concerned.

The physiologist embarks upon his project by dissecting nerve tissue and carrying his investigations to the brain. The psychologist analyses thought and emotional processes and endeavours to ascertain their connection with the functionings of the brain. But both arrive at a full stop, and are totally unable to bridge the chasm between the subjective self that cognizes and the objective factor that is cognized, or, to put it otherwise, between the I and the I-not. And presumably the occultist renders little more assistance in this connection by delving into superphysical regions.

It would thus appear that there is only one other way of approaching the problem, and that is the metaphysical. This calls for the employment of the abstract mind and the pure understanding. The metaphysician, therefore, examines the position closely, abstracts all the qualities from all the quantities, and finds that in the ultimate or limit there remain two identities that defy further abstraction. One of those ultimates is the point, the other infinity. Neither can be conceived, yet neither can be refuted.

The yogi is ever ready to remind us that the thinker is not the thoughts that he thinks. This fact may be true in one sense; but it has reservations. There is no line of demarcation between the thinker and his thoughts. A thought is not a thing that can be isolated from the thinker and thrown aside. One, of course, does not refer, to a thought form. Nor can there be a thinker without a thought, for a thinker involves a thought and a thought a thinker.

Thus it can be seen that only in one sense does the age-old aphorism hold good. True a thought comes and goes while the thinker remains, but the thought is merely a modification of consciousness, as is also a sensation. Thus the question arises, what causes these modifications ?

This question brings us to the very roots of being. These

mysteries are alluded to in The Secret Doctrine, and various mythical and cryptic terms are employed to elucidate them. But when the position is examined, it will be found that the whole situation seems reducible to the following. The container of the entirety of creation and all its potentialities is personified in The Eternal Parent. This is the origin of all that is was or ever will be. It is the One Reality, The Absolute. This embodies all that is conceived by the modern notion of a continuum and much more. And perhaps the most significant and important point on which it transcends this scientific notion of a continuum is in that It recognises intelligence as being inherent in its essence.

Thus when this last fact is appreciated, it will be evident that this Eternal Parent, ensouling infinite space must be responsive and operative at every conceivable point of space. That is precisely the case; and this responsiveness is in the last analysis accountable for every thing and process in creation.

The facts are too abstruse to enter into here in detail, but the most mysterious and unfathomable feature of the position is, that each of these points of space at which the Eternal Parent is capable of functioning seems to embody the power and ability to assume a kind of individual responsibility infinitesimal at first but growing in intensity as evolution progresses. Until at length it acquires a self consciousness, and subsequently a superself consciousness. And during the whole of this period of evolution it also possesses the ability to influence a fellow entity. This last characteristic embodies what we have chosen to call the principle of contact. What enables one unit to exert this influence would seem to be one of the profoundest mysteries of being, but on this ability rests the whole secret of experience, physical and superphysical. Furthermore this influence would appear to be transmitted from unit to unit in and through the Eternal Parent and not by any means that one normally might imagine. This latter statement may be somewhat speculative. What one perceives by either the clairvoyant sense or the ordinary physical sense is the effect of the operation of such influence.

Thus we have the point as the infinite limitation of the infinite, and the unit that is responsible for all manifestation. It is the elusive entity that is the core of the atom and the enigma that

answers our first question, "what is it that vibrates ?" It is the absolute constant, not only of the philosopher and scientist, but also of the occultist.

Now it is very easy to see that the point is the limit of spacial division, or material division, but it is not so easy to see that it is the limit of conscious or spirit division. Yet consciousness always limits itself to a point when it functions. Consciousness is ever limited. One is conscious of this or that, never of infinity. A movement commences at a point, a feeling arises from a point, and a form is delineated by the movement of a point. The aspects corresponding to these factors are will, feeling and intelligence respectively.

The point is perpetuated by the will, both in time and space. Will thus is responsible for motion both spacially and durationally. Feeling, or the affective aspect of consciousness is responsible for sensation and all experiences that involve contact between entities. It accounts for memory, telepathy, emotion, and that mysterious quality of matter we designate mass. This last-named quality is a very deceptive quantity, and one ventures to suggest, even affirm, that it is very different from what our normal senses would have us believe. In the ordinary way the senses would have us conclude that matter was solid and rigid. The occultist, however, and now the scientist inform us differently. The metaphysician corroborates that notion.

The third aspect of consciousness, intelligence, creates form, and that it accomplishes by directing will. The three aspects, however, constitute consciousness and whenever the one functions the other two are always to be found playing a secondary part.

In this way the significance of the point can be clearly appreciated. It is assuredly common to both the concrete and the abstract worlds, a junction between spirit and matter.

Consciousness and Matter.

As stated previously consciousness is a link between spirit and matter, and this verity is freely admitted in Theosophical circles. But strangely enough it often happens that no sooner has the fact been

admitted than the person in question will ask a question or make an observation that clearly betrays his lack of appreciation of the significance of the statement. If there is a link between the two, is it to be implied that spirit and matter are separate ? If they are, does this link effect a junction by virtue of some inherent quality it possesses ? If it does so, is it an embodiment of the two ?

Spirit and matter are two aspects of consciousness, and all the three are aspects of a still profounder reality. Spirit and matter are two phases of consciousness, the abstract and concrete respectively, and they have no existence apart from consciousness. The two enigmas, spirit and matter, are invariably conceived as distinct and separate entities impinging on one another as two material bodies impinge. This impingement involves the quality of mass, which is virtually the sum and substance of matter. Such, however, is not the case. Spirit and matter cannot, unless they each possess some common attribute, effect such impingement. Hence the scientific notion of mass must go, or consciousness must be regarded differently.

What then is the position ? The point once more comes to our rescue. An ancient philosopher said that a moment of time, and an atom of substance were one and the same thing. The writer would amend that aphorism and say that a moment of time, an atom of substance and a pulsation of consciousness were one and the same. But what is implied by this statement ?

The implication is, that when consciousness functions time manifests and phenomena appear in space. But a pulsation is involved. What is the significance of this ?

The significance of this fact is that consciousness always functions in pulsations. This is the basis of all vibratory processes in nature. It is the cause of manifestation and pralaya, of radiation, of wave motions, and of all characteristics resulting from the law of periodicity. But what evidence one may ask is there that consciousness does so function ?

Let us examine the position. A sensation is experienced negatively by the entity concerned. The person responds instantly, the sensation and response being one process. But in the case of

the animal and human being a perception ensues and that gives rise to a species of cognition which associates the sensation with an idea. Attention is therefore called into play and directed towards the object, and that attention is sustained from moment to moment by an effort of the will. The process is for the most part automatic, but when weariness supervenes the effort becomes obvious. The pulsation of the heart is well known, but that of the head is not. The apprehensive aspect of consciousness goes out to the object of cognition and the comprehensive aspect returns. It is a rhythmic process and is sustained by the will momentarily.

The cyclic characteristic is also revealed in a logical process. Consider the syllogism. Grant that A equals B and B equals C. From the two propositions it can be deduced that C equals A. Obviously a cycle is here demonstrated. The cyclic feature is also prominent in feeling and emotion. A feeling is experienced, it develops to a certain degree and then it subsides or sinks back to zero.

Now if there is no division between spirit and matter, they must be one and continuous, and so they are. Which fact means that consciousness is the result of some modification of either the one or the other. Once more that is so; and in this instance the modification involves that mysterious principle of being referred to as the principle of limitation, a principle on which all created objects and beings depend.

Recalling our reference to The Eternal Parent, we saw that this Entity seemed to possess the characteristic of being able to function at every conceivable point of space and begets so to speak from Its very Bosom a son immaculately. This verity is held for sound reasons to be the foundation of all metaphysical and religious thought. This Immaculate Son, possessing all the potentialities in latency of His Divine Parent, can also create, and so He does, and that in two ways. Firstly, He can commit incest with His own Parent, or Mother, and produce another Son, or secondly, He can interact with a Brother, also a Son of the same Mother, and produce an offspring. This is possible because of the operation of another primary principle of being named the principle of contact.

But what bearing has this on our immediate subject ? The bearing is this. In focussing the will in preparation of performing a conscious act, the self limits itself to a point. Then it disgorges

force or energy into space, the field of action, and a phenomenon appears. This phenomenon is matter.

But consciousness functioning in a certain matter, and spirit and matter embodying its two aspects, it reflects its nature in the manifested creation. And the chief characteristics of this nature are pulsative motion and cyclic progression. Thus we have some interesting facts. The first is the rhythmic or pulsative characteristic of the atom, the second is its spherical form. The will sustains the form, the affective or feeling aspect accounts for its affinity for other units, whilst the intelligence gives rise to its contour.

Descending now to the more practical aspect of our subject, let us deal with some of the more realistic and logical consequences of the position. A new term is here required, and the reader may take exception to the boldness generated in inventing one. Actually, however, a new term is called for because there would not appear to be an idea in western thought that corresponds with it. The word bears a relationship to abstract studies similar to what the term technician bears to technology. It connotes an endeavour to concretise and render practical abstract theories and notions.

The term alluded to is abstractician. As before stated, the physicist employs symbols which in turn embody notions that are abstract. To illustrate, the symbol, $\frac{1}{2}MV^2$ indicates what is known in scientific circles as kinetic energy. The M stands for mass, the V for velocity. M is that elusive characteristic of a material thing that resists motion, it is its inertia. It is usually measured by the weight of the body. Velocity, as everyone will know, is the speed at which a body travels through space; whilst kinetic energy is the force exerted by a travelling body by impact with another body.

Now in the same way as the physicist employs abstract notions to illustrate concrete processes, so the abstractician is compelled to employ concrete notions to express abstract processes. So he does; but in so doing he finds that the symbols freely employed by the physicist are peculiarly suitable for his own purposes. The symbol $\frac{1}{2}MV^2$ is such a symbol.

This symbol represents the product arrived at by multiplying the mass of a travelling body by half the velocity squared at which it is

travelling before striking an object and coming to a stop as a result of the impact. To illustrate, consider a right-angled triangle as shown in the addendum. Let AB be a vertical line and BC a horizontal one of equal length. If AB represents the initial velocity of a travelling body and the distance BC the time that it travels after collision with another body, the area of the triangle $\frac{1}{2}V^2$ clearly represents the distance travelled. The other factor in the quantity is the mass, usually expressed in weight.

This figure may just as reasonably be employed to illustrate a pulsation of consciousness, or unit of force. The repetition of such a pulsation constitutes energy. Therefore a correspondence can be detected between a conscious functioning and a movement in space of a body. On the one side such functioning is referred to as will, on the other as motion, or effort. These are not separate quantities but one and continuous and they have a common denominator, namely, the point.

It will thus be easy to appreciate that the orthodox mathematical notation may be used both for the expression of a physical event and a psychological one. But here arises a very significant factor. The western physicist acknowledges only two principles in this expression of kinetic energy, namely mass and velocity. Actually, however, there are three. The occultist recognises this and makes amends for the omission by bringing in the third and naming the compound, fohat. This quantity embraces the additional factor of intelligence.

But how may this addition be expressed? By first of all recognizing the main characteristic of intelligence. This characteristic is to create form or formulate ideas. Hence if the above triangle is converted into an irregular tetrahedron by cubing with V and dividing by three, the desired formula results, that is $\frac{1}{6}MV^3$. A tetrahedron is the basis of all form. The details are shown more clearly in the addendum.

If the implications of the pulsation with regard to its twin aspects, spirit and matter, are reflected upon, it will be seen that a deceleration in velocity is evidenced as it approaches the point. On the spiritual side this process takes the form of a limiting of the focus of attention, or concentration, to a point, and then

disgorging the potential force into space, where an image or reflection of the conscious creation assumes expression, or manifests.

The force, so to speak, on the objective side exerts its full power in the immediate vicinity of the point, and this constitutes the so-called magnetic field of the atom. But the force traverses a spirallike course, and, to use an occult metaphor, takes strides and gives rise to circles within circles. Then having reached its nadir, it reverses its course, completing the complementary arc of the descending ones, and thus forms what constitute wheels, or spirals, within wheels. These last would appear to be the atoms of the various planes as referred to by the late Mr Leadbeater (see diagram 3)

The points separating the circles, represent the critical divisions of the planes of occult teaching, and the reason why a normal observer could not perceive the whole unbroken thread is because his instruments of observation are limited to certain ranges of vision. This instrument in the case of the human being in the physical body is the optical apparatus.

An analogy from the principle of television may assist us here. The image of the television screen is produced by a beam of electrons scanning a fluorescent surface, and it is the rapidity of the scan plus the effect of the persistency of vision that account for the final picture. If the real self or thinker is regarded as the source of the electrons, the battery, the screen as space, and the resulting appearance as the material object, an apt illustration will ensue.

The stream of electrons consists of individual units. That beam is caused to scan a certain area at a certain velocity. The corresponding conscious process consists of an idea which can be paralleled with the final picture on the television screen. The individual electrons may be likened to the pulsations of consciousness; the perpetuation of the beam to the will. The desire would correspond to the motive that inspired the process, and the intelligence to the guiding mechanism.

But the main enigma involved in this phenomenon is the nature and essence of mass, or inertia. What is this elusive quantity that is virtually the very soul of matter. Where is it and what is it ?

There is no impact inherent in the mysterious transformation from a purely spiritual or subjective idea to a material, or phenomenal form. Hence what accounts for that form ?

At this juncture one must tread rather warily; but there is sound reason for suggesting that mass is the expression of a spiritual attitude. It is a phase of consciousness. It has no reality in the way normally conceived, In which manner it may be asked, why then can a sledge-hammer break an iron door ?

The answer to this question would appear to be, that THE UNITS OF LIFE CONSTITUTING THE SUBSTANCE OF THE TWO RESPECTIVE SURFACES REPEL THE INTRUSION OF THEIR OPPOSITES. If those units were so disposed a coalescence could be effected without any apparent violence. It is not that two substances cannot fill the same space; they WILL not do so. They require speaking to in their own language. Magic and mantrams seemingly accomplished this.

But in spite of the mysterious nature of this quantity mass, its characteristics persist, and it therefore must be recognised. Consequently the next step is to trace it from its very origin to its apparent ultimate revelations. In the physical world known to our five physical senses it reveals itself as a resistant force; it is the foundation of all sensation.

Mass is therefore from a logical standpoint inherent and concealed in the very point of absoluteness. If our diagram is consulted once more, we shall find that diagram I portrays a moving point, M. This point may be taken as the ultimate unit of mass. Let us regard this as a point of light.

Now if this point moves at a certain velocity, the spectacle of a travelling speck results. It is called an event. If, however, the velocity is increased to a given degree the spectacle of a moving point vanishes and a fixed ring of light ensues. In this way an event is converted into a thing, and a thing confronts our gaze.

If the point accelerates further and proceeds to describe a series of rings, one within another as shown in diagram I (iii) a

closed surface results. If then the point strikes out on a three dimensional course, still accelerating, and describes a spiralic sphere, a ball of light emerges, provided, of course, that the successive spirals are sufficiently close to one another.

In all of these instances, however, it must be remembered that the phenomenon in question is illusory and is the product of a travelling point. But this point embodies or conceals a unit of mass. The kinetic energy, or force of this unit may be expressed by the formula $\frac{1}{2}MV^2$. But observe what follows.

In diagram I (ii) the travelling point presents itself as a thing, which, as a thing, is stationary and is regarded as possessing mass only. It is thus seen that mass, or matter, and force or energy are interchangeable quantities, depending wholly on the medium through which they are observed, and on the velocity of the absolute unit.

Next observe another significant factor. Imagine the ring of light I (ii) to be a wheel, and picture the wheel as rolling along a path. Assume M to be the absolute moving point. It will immediately be apparent that as the wheel travels along the path, the point M will perform a double motion, one its original circular course, the other a lateral one. In this way its velocity will increase, as obviously in the same time as it described in the first place the circle as in I (ii) it now traverses the path AD diagram II (ii).

If this position is carefully examined, the following fact emerges, which will be evident from the ensuing formulae:-

If the travelling point M, embodying the absolute abstract-concrete unit of mass, travels at a given velocity, the force that it exerts will be defined by the formula $\frac{1}{2}MV^2$. If, however, that velocity accelerates to a certain degree, the motion will vanish and the phenomenon will be regarded as a stationary thing possessing mass only. But the mass is only disguised force. Nevertheless it functions as mass; but it is different from the absolute mass of the moving point. Let us then designate this secondary mass as M_1 . We may thus write the formula as follows:-

$$\frac{1}{2}MV^2 = M_1$$

Now if the entire ring, as a ring I (ii) moves at a given velocity, its force can be expressed as $\frac{1}{2}MV^2$. Hence reasoning along those lines, we can deduce that when V_1 reaches a certain velocity this term will be converted into M_2 . And so the process may be continued,

This fact would appear to be in harmony with one of the claims of the Relativity Theory of Einstein, namely, that the mass of a body increases with its velocity.

But the one thing that must be borne in mind is that the absolute point which has been designated M is not a material entity that can be identified by analysis. It is an antakarana, a junction, a bridge, between the abstract and concrete realms of being. The term *tamas* might express its nature more comprehensively than the western word mass, for the meaning of the former, Sanscrit word is more subtle than the English word mass. It is no more material than spiritual. It appears at a point of space, or Mother Substance, when spirit limits itself to the limit, and as a result of that mysterious, unfathomable quality of the inexpressible reality, Mother Substance, it is endowed with the capacity of expressing itself as a stream of force which in turn gives rise to phenomena and conscious functioning of every possible kind.

The point is the halting terminus of spiritual activity, but the commencing centre of material activity and manifestation. The two worlds - the abstract and the concrete - cross at the point, and the one reflects the other inversely. Thus material sense deceives one into seeing things upside-down. It is the Eternal Parent, the Magic Mirror, the Continuum that conceals the mystery.

Conclusion.

To conclude, then, one may ask, where do we find ourselves ? It has been the object of this endeavour to bridge what the occultist might refer to as the antakarana, the junction between the abstract and concrete realms of being. The items dealt with are very abstruse and subtle and call for wider treatment than what has been possible in an effort of this description. But the feeling is that unless the searcher is inspired to enter the more speculative regions of the metaphysical world and reduce some of its verities to obvious

realities as evident as those acknowledged by orthodox science, little in the way of steering the modern mind out of the mire of crude materialism to the loftier heights of spiritual understanding can be hoped for. It is often said that Theosophy requires new ways of presentation. That may be so. But is it a new way of presentation of these age old truths, or a deeper understanding of their meaning and implications. One is inclined to suggest it is the latter. When a fuller and more comprehensive understanding of these ~~cryptic~~ and profound statements that are found in the opening stanzas of the Secret Doctrine is acquired a new presentation will follow.

ADDENDUM

The main points dealt with in the preceding pages call for much further elucidation and can be only adequately explained with the aid of illustrative diagrams. The following, therefore, should materially assist the student in this direction.

(All Diagrams are on the last page)

Diagram I (i) illustrates the absolute point, M, in motion. It cannot be too strongly emphasized that this unit is the absolute unit of what one might call reality. It may be suggested that it is the elusive entity for which modern science, and philosophy, is searching. One dares to assert that it is also the unit that is referred to in eastern philosophy as the atma. It may in addition have some connection with the jiva. In any case it is an abstract reality, and concretion is its manifestation in time and space. It conceals that enigmatical quality known to western thought as mass or inertia.

This phenomenon I (i) may be represented by the mathematical symbol MV , M being the notation for mass and V for velocity. This quantity would be designated in western physics momentum.

As the point travels in its circular course as at I (i), assuming it is a point of light, it would be recognized simply as a travelling point, an event. If, however, the velocity was accelerated beyond a certain degree, it would present the appearance of a ring of light, an object or thing, I (ii). This illusion would be due to what is referred to in scientific circles as the persistency of vision. It is an optical illusion.

If the point accelerates still more and proceeds to cover the whole of the area enclosed by the ring of light in a specified time a fixed patch of light would ensue I (iii).

If last of all it further accelerated but proceeded to describe a sphere as at I (iv), the successive spirals being sufficiently close

to one another, the appearance of a solid ball would result.

But another apparent condition now emerges. This refers to the scientific theory advanced by one scientist that an electron appeared to be in two places at once. This enigma may be explained on the following lines. All forces, as has been mentioned, work in pulsations. A motor car speeding along the road appears to be travelling at a smooth, even rate. We know, however, that this seeming phenomenon is actually the outer disguise of a succession of explosions. These latter are nothing more nor less than pulsations.

When one presses on a surface, the pressure to all appearances assumes the nature of a steady continuous force. That, however, is deceptive. The pressure harmonizes with the conscious intention, which, as has been hinted, pulsates. Hence the pressure pulsates, and, in so doing, encounters the revolving point at every conceivable position. Continuity ensues, resembling that experienced by the travelling point of light, except that in this instance the sense involved is that of touch instead of sight.

The travelling point may be regarded in two ways. It may be viewed as the same unit pursuing a definite course, or it may be imagined as a succession of points called out of the background of space by the moving consciousness that delineates the path in the mind.

Considering the mathematical expressions connected with these factors, we have first of all the factor, M. This symbolizes the fundamental unit, the point of absoluteness, which conceals and embodies the quality of mass. When this moves the expression is symbolized by MV , embracing the factors of mass and velocity. This combination is named momentum.

When this travelling body encounters another body in its progress, it exerts on the latter force. This is designated kinetic energy and symbolized by the formula $\frac{1}{2}MV^2$.

If now what has been stated is carefully noted, it will be evident that if M remains constant and V increases when the latter attains a certain degree the $\frac{1}{2}MV^2$ of one stage is converted into M of

the succeeding stage. Therefore, energy or force can be expressed as either energy or mass, mass being identical with matter as normally conceived.

From this, then, it is clear that the factor that remains constant throughout these transformations is the fundamental unit M. This is really the absolute universal constant. The subsequent M's are apparent and merely indicate motion. Thus if any influence is brought to bear on the unit during these transformations in any intermediate stage, it will produce an effect on the next and possibly all of the succeeding stages. This principle gives rise to the different planes of being.

Perhaps, however, the most interesting feature of this situation is its relation to the orthodox scientific theory bearing on relativity. Among other things this theory states that a moving electron's mass is dependent upon or relative to its velocity. If the diagrams are studied this becomes obvious.

In Diagram II (i) is depicted the ring of light, that is I (ii) being translated as a body through space. In this action the ultimate unit M will experience a double movement. If that movement is traced as shown in II (ii), the course travelled by that point is revealed as an arc C.D. Clearly the arc C.D. is longer than the circumference of the circle at I (i), but it is traced by the point M in the same time, which means that the velocity of the point has increased.

It has been demonstrated that the ring shown in I (ii) is a body in motion. As a body it merely manifests the quality of mass, but the mass in this instance could be expressed by the formula $\frac{1}{2}MV^2$, namely force. Hence if V is increased in this term the corresponding M would be increased. Thus the riddle is solved. This may not be the orthodox explanation of the problem but assuredly it is one explanation. The following equations might elucidate the argument.

$$\frac{1}{2}MV = M_1; \frac{1}{2}M_1 V^2_1 = M_2 \text{ and so on.}$$

As regards the third series of diagrams there is here illustrated by spacial representation what seems to take place in consciousness as it functions.

Diagram III (i) represents a pulsation of consciousness. This is depicted as a serpentine course, AD, revealing a line constituted of three curves of lessening amplitudes. These are reminiscent of the metaphor in The Secret Doctrine which declares that fohat takes three strides and hisses through space as a serpent. If the line is coiled the figure at III(ii) results. This latter, perhaps, would be a truer picture of what occurs.

Originating at the point A, the unit of force, or fohat, proceeds at the same velocity until it reaches B. Then it decelerates, and continues at that decelerated rate until it reaches C. Again it decelerates and continues to D. These velocities are presumably so regulated that one viewing the entire line from a super-plane would perceive the course as continuous.

Diagram III (iii) represents the return coiled path, and if superimposed on III (ii) would constitute III (iv). The complete circles within circles would correspond to or confirm Mr C.W. Leadbeater's reference to the ultimate atoms of the various planes being enmeshed in one another. Incidentally, the circles should be spheres.

The imagination must picture the phenomena as moving in time as well as in space. The spacial component is the actual figure; the time component the perpetuation of the figure or form. The two constitute the pulsation and the resulting appearance.

The will aspect of consciousness is responsible for motion both in time and space. The feeling or affective aspect functions as the sense of contact or impact; it accounts for the fact that one body can influence another; and the cognitive or intelligence aspect gives rise to the form, or formulates movements or actions; its main characteristic is limitation.

The points B and C indicate the demarcation lines between the planes. The figure could be extended to show five such divisions, but a general idea of the principle is sufficient in this instance.

Diagram IV. illustrates the normal functioning of ideation that is the prolongation of the pulsating process. Once more the television may assist us in forming a clear notion of the procedure.

First of all imagine the self in the boundless abstract to concentrate its attention as a result of some impetus to a point. Call this the atma. Then think of the conscious force going out into the concrete world (the two incidentally are one) and giving rise to phenomena, which is matter. As mentioned, the consciousness pulsates in a manner that could be imagined as resembling that of the electrons as they issue from the negative pole of the battery. The ideating process sweeps the line of fohat into the required form similar in principle to how the electronic beam scans the plate. The process, of course, is so rapid that it defies detection. This is shown in the diagram by the line X, the cube Y standing for the object conceived.

The receptacle of the force, that is the substance of space, must not be forgotten.

The next diagram, No. \overline{V} , attempts to illustrate the factor of fohat. This may occasion some difficulty in understanding the central idea.

There is first a right-angled isosceles triangle, that is, the two lines AB & BC are equal. If we designate $AB = V$ (velocity) it will be appreciated that the triangle will equal in area $\frac{1}{2}V^2$. Using now the imagination, we may employ a purely scientific term, or symbol, to illustrate an occult fact or abstract truth. Let the horizontal line BC represent the normal course of evolution, to which the individual is negative, and let it also represent a unit of time. Let the vertical line AB represent the voluntary or positive effort that the individual makes in his attempt to hasten evolution, and let this represent a unit of space, or distance. In this way force, which is virtually the embodiment of effort, involving resistance, may very appropriately be symbolised by the triangle in question.

Imagine now the absolute unit M starting at the point C its evolutionary course. There is first the eternal urge to which the unit is negative and which drives it on irresistibly; then there is the inherent responsiveness of the unit. The one may be represented by the horizontal line, the other by the vertical. The two working together generate the triangle and, incidentally, the two directions involve the cross. The one direction again may be

regarded as indicating space, the other time; and the unit itself will represent mass, or inertia. From another angle the two directions could correspond to feeling and will.

Force as anyone will readily agree involves both a pusher and a resister. But force considered only as a quantity in itself is blind and requires intelligent direction to realize a purpose. And seeing that force is never exerted without a purpose, however concealed that purpose may be, no scientific expression of the manifestation of force can ever be complete without a factor that embodies that purpose. Consequently the western representation of kinetic energy $\frac{1}{2}MV^2$ is incomplete.

How then can the additional factor be expressed? Another dimension is required at right-angles to the plane of the paper. Therefore if a line is drawn from the point B at right-angles to the two lines AB & BC in the said direction to the point D, of equal length to AB or BC and the four points A, B, C, D, joined the desired figure results. The volume of this is $\frac{1}{6}V^3$ and it is an irregular tetrahedron, which is the basis of all form. It, therefore, adequately reveals the intrinsic nature of creative intelligence. The total expression thus is $\frac{1}{6}MV^3$, and this would constitute the scientific formula for fohat as against that of $\frac{1}{2}MV^2$ for kinetic energy. The wanted factor is $\frac{1}{3}V$.

The final diagram illustrates the familiar principles involved in the well-known scientific law of inverse squares. To those who are not acquainted with this term, it may be of interest to know that force issuing from a point is conceived as proceeding from that point in all directions in radiating lines, these lines being proportionate in number to the intensity of the force. This principle applies to all forces whether heat, light, sound, electricity or magnetism.

If the diagram is examined, it will be evident that if the radiations are conceived as lines of force emerging from the point M, there will be the same number striking the surface B as there will striking the surface C. Hence if the intensity of the force is proportionate to the number of these lines, the intensity of the force at B will be equal to the whole of that at C. But if the distances between A & B and B & C are equal, the area C will be four times that of B. That being so, a portion of the area of C equal to the

whole of B will contain only a quarter of the number of the lines of force as obtains at B. Thus the above law of inverse squares states that the intensity of any force at any given point is inversely proportionate to the square of the distance of that point from the origin of the force.

The reason why this law is brought up in this connection is the bearing that it has on the modern scientific conception of the electron. This entity is as everyone knows a pre-eminently elusive quantity, and some are disposed to regard it as a mere unit of force. If that, however, is adopted and its magnitude ignored, a dilemma arises. By applying the law of inverse squares, the following inconsistency confronts the mathematician.

Taking the intensity of electrical force emerging from the electron as a point, or centre of force, as E, it is found that at a distance of D it exerts a force at that distance on another unit of equal magnitude expressed by the mathematical formula $\frac{E^2}{D^2}$

Now if this formula is examined, the thoughtful individual will readily realise that if the denominator is reduced infinitely in magnitude the value of the expression will approach infinity. If it actually reaches zero, the value of the expression will be zero. This implies that the force at a point infinitely near the two opposing forces is infinitely great, but at the actual junction is zero. Can the paradox be resolved ?

Once more the mystery concealed in the point carries its own solution. The force at the point in question is infinite, but - and here is the rub - it is infinitely restricted.

There are many more involved problems associated with this last situation, but in this brief article little more than a general reference may be made to them. Considering the lines of force or radiations issuing from the point, is one entirely justified in regarding them as direct, straight lines ? We may all be familiar with Maxwell's tubes, but that notion scarcely holds and is not very well received in modern circles. This idea, as hinted, embodies the conception of the intensity of the force at any point distant from the point of origin being dependent upon the number of lines at that area. But let us reflect on what the implications of that theory imply.

Firstly, do they imply that the lines run direct at a fixed velocity and suddenly come to a stop ? Do they imply that there is an ever widening space between the lines as they diverge ? And what becomes of the extreme units of force - electrons, photons, etc - at the null points, that is, the points at which the said force vanishes ?

If the position is considered some glaring inconsistencies appear. In the first place, if the units of force travel at a lessening velocity and finally come to a halt, there would be two factors to consider in estimating the intensity of the total force at a given point. One would be the velocity of the travelling units, the other their intensity. Secondly, the density at a certain distance from the source would be so rarefied, that is, the space between the lines would be so great, that there would inevitably be many areas devoid of the influence of the force. Furthermore, the force of gravity does not presumably obey this law beyond a certain altitude in the atmosphere.

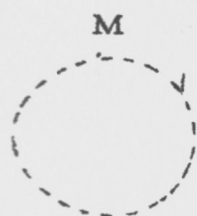
What then can be made of these paradoxes ? With the exception of that last they may all be resolved by deducing from the nature of the absolute unit M. This travels spirally and therefore returns to its source, having completed a sphere. The completed sphere then describes another sphere, and so on. Thus the forces referred to emerge from a point, describe a sphere, and the total sphere, as a unit, proceeds to describe a further sphere around the original centre of force. In this way the whole volume of the force-field is alive. A further speculative suggestion might be that the apparent wave-motion that the various forces manifest in their operations may not be due to the wave course that the original point pursues but to the spiral rings as they are viewed or caught from the various angles of observation.

As for the exception of gravity at a certain altitude, one would hazard that the cause of this is attributable to the influence of another force operating in a transverse direction. No force functions uninfluenced by another.

Therefore, in conclusion, although it may sound extraordinarily sweeping, one feels fully justified in asserting that when the nature and the manoeuvres of the elusive abstract point, or ultimate unit M, is considered and all the implications taken into account, it will be found

that it offers a solution not only to the various problems now occupying the scientific mind i.e. those having a bearing on relativity, quantum mechanics, indeterminacy, etc., but also the very mysterious and weird experiences of occultism. It may also reconcile some of the apparent contradictions that now exist between occult and scientific findings.

I.



I (i)



I (ii)

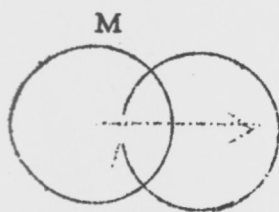


I (iii)



I (iv)

II.

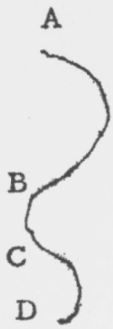


II (i)



II (ii)

III.



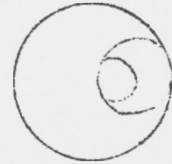
III (i)



III (ii)

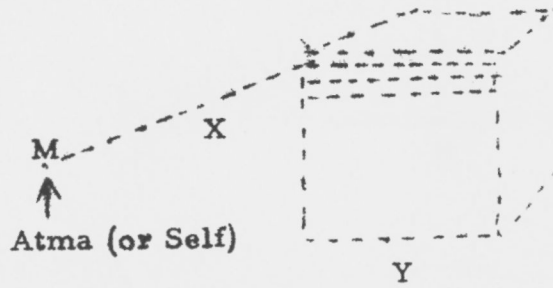


III (iii)

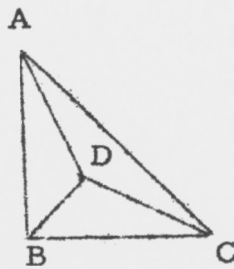


III (iv)

IV.



V.



VI.

